Indicators in the context of the SUD implementation

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Legislative environment

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Statistic Regulation
- Use & sales data collection
- Identification of trends (crop, product specific
- Identification of priorities
- Calculation of indicators

CAP
- Agri-environmental measures – national plans
- Buffer zones
- Cross compliance relevance of Directive measures & IPM principles
- "Greening " of thee future CAP ?

Machinery Directive
- Despite human safety -
- Environment safety standards

WFD
- National implementation
- Water protection measures
- EQs
- River basin management
- Use restrictions in sensitive areas
- Buffer zones

Sustainable Use Directive

91/414 & 2009/1107
- Availability of tools to allow implementing IPM
- Product registration incl. specific use requirements /conditions / restrictions
- Monitoring of specific substances

Waste Disposal Legislation

Soil Directive

Bird & Habitat Directives & Natura 2000

National legislations & provisions

SUD implementation and National Action Plan

- **EU Sustainable Use of Pesticide Directives – 128/2009/EC**
  - Member States have to develop National Action Plan and legislative framework to ensure a reduction of the risk associated with pesticide use.
  - NAP to comprise objectives, targets, measures and timetables.
  - Freedom for the Member States to choose the most appropriate objectives, targets, measures and timelines according to their specific situation.
  - The reduction of risks can be in different areas of the use – prioritisation possible.
  - Progresses toward this objective can be measured by respective indicators

Measurement of NAP progresses

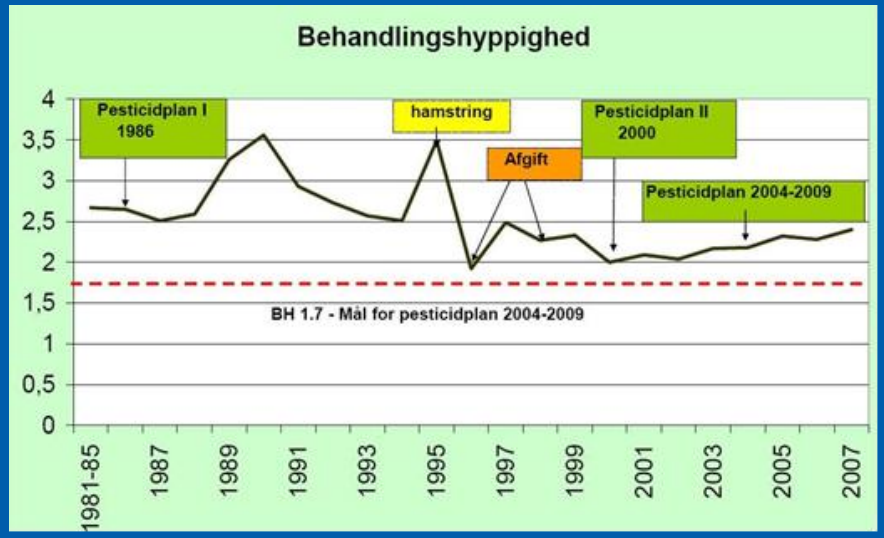
- **The Directive refers to the concept of sustainability, but also to the reduction of "*risks and impacts from the use of pesticides*".**
  - It is essential to consider the three components of the sustainability concept: economical, environmental and social.
  - Sustainable development can only be achieved if appropriate methods for measuring all these different components are available.
  - Indicators should be able to demonstrate progress, and as such performance measurement towards the goal of achieving sustainable use
- **Challenges for Member States :**
  - Identify the best strategies and measures that will deliver the greatest benefits
  - Identify indicators that can quickly and clearly identify which measures are working most effectively to reduce risks

Member State approach focusing on risk or use reduction

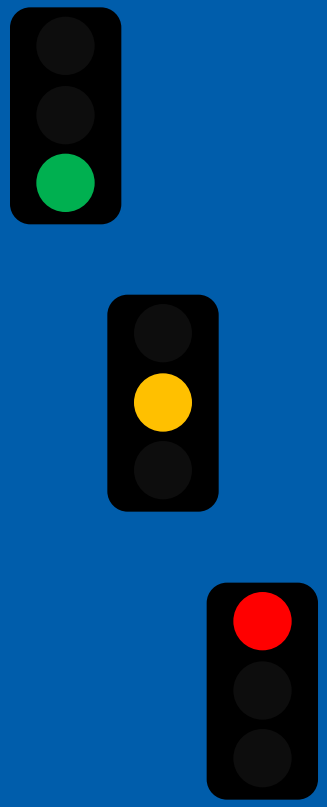
- **The Directive let Member States chose the appropriate mean to reduce risk and impact of pesticides**

- **The example of the 3rd Danish Pesticide Action Plan**

- The Plan from 2004-2009 had the objective to reduce the use by 50% in application frequency and attain a treatment frequency of 1,7.
- Plan not successful at the end with a reduction of TFI no achieved.
- Denmark is now revising the plan with a new approach focusing on impact reduction



Criteria for suitable indicators



- **Indicators should be defined to reflect how pesticides are used in the reality of farming. They have to be:**
  - **Relevant**

The indicators must reflect the context and the principal interactions appropriately.

  - **Comparable**

The indicators must allow comparison over time and areas.

  - **Practical & Feasible**

Indicators should reflect the reality, in particular with regard to results being achieved due to the implementation of measures.

  - **Understandable**

Indicators should provide a clear indication of progress being made.

  - **Verifiable**

Solid and adequate data for the indicators must be available.

Indicators of theoretical risk

- **Several models exist to calculate theoretical risks (e.g. HAIR, SYNOPS…)**
  - Difficulty to consider mitigation measures
  - Difficulty to determine worst case scenarios or agglomerate data
- It should be avoid to duplicate the scientific assessment made during the long registration process
- They are **complex** and **complementary** tools with known limitations that should not be interpreted as **real** risk indicators by non-experts (e.g. non inclusion of economic or social impacts).

Examples of suitable indicators – Environment sustainability

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Agricultural production area covered by trained, certificate holders (% compared to crop production area)
Number of farms/holdings using remnant purification systems (in % total farms)
Use of spray drift reduction nozzles (e.g. in % area covered)
Integrated Pest Management/Integrated Crop Management implementation rate
Modern machinery in use
Spraying equipment passing the inspection (in % compared to spraying equipment in use)
Number of cross compliance complaints linked to the use of PPPs
Compliance with EQS on EU priority substances linked to Water Framework Directive
MRLs exceedances (%) as a measurement of adherence to the Good Agricultural Practice (GAP)

Examples of suitable indicators – Social sustainability

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Continuous professional development - Number of farmers/distributors/advisors holding plant protection training certificates (in % compared to total number of farmers)
Number of professional users in the non-agricultural area applying the relevant IPM general principles
Container management systems – recovery/collection rate
Triple rinsing, continuous rinsing or equivalent techniques of empty containers (rinsing rates (%))
Rapid alert (RASFF) notifications) which actually lead to produce being either withdrawn from the market or being blocked from entering the market (in % of total alerts) (home grown produce only) Relation (comparison) of above to other food/feed contaminants leading to produce withdrawals in light of RASFF
Harvest - level of mycotoxins (non compliance (in %) with legal limits)

Examples of suitable indicators – Economic sustainability

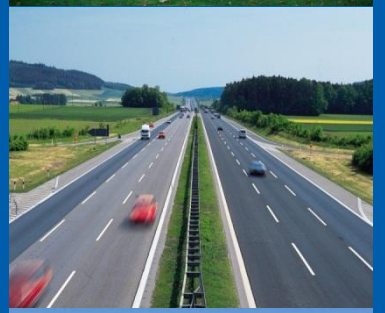
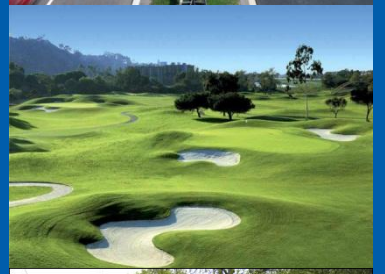
Number of viable and registered solutions available for specific pest/disease problems
Registered active compounds per key pest/disease problems
Number of economical viable alternative non-chemical solutions available for pest/disease problems
Pest pressures over the growing season
Potential harvest losses due to pest pressure

- **Additional country indications needed, such as:**
  - Harvested yield and quality
  - Agricultural productivity
  - Costs per ha, gross margins/ha

Examples of suitable indicators from an Amenity perspective

- **Article 12 of the SUD is targeting the reduction of use or risk in specific areas**

Number of cities, municipalities, local or regional authorities using trained staff (internal or external) with sufficient knowledge on good practices when using PPPs (holding a certificate)
Continuous professional development
Number of entities using remnant purification systems
Use of modern spraying machinery
Uptake of modern solutions for remnant management
Triple rinsing, continuous rinsing or equivalent techniques of empty containers (rinsing rates (%)
Development of container management system (e.g. collection rate over the years)


Conclusions

- Plant health and the sustainable use of PPP need to be seen in the wider context of sustainable agriculture
- Focus needs to be on ensuring sustainable use practices & the respective indicators; not on minimising the available solutions
- Duplication needs to be avoided and existing legislation to be taken into account - Registration of AI/products covers risk assessment
- Involvement of agricultural stakeholders is key for obtaining relevant data
- Improvement of practices is the way forward! – IPM as a holistic concept offers a lot of opportunities to achieve the goals of the SUD
- Industry has a lot of experiences and expertise in sustainable use / respective projects and is prepared to be actively involved and contribute to enhancing sustainable use

Conclusions

- Focus on measures that will deliver the greatest benefit towards achieving the sustainable use of PPPs.
  - Ensuring responsible use and improving use practices
  - Training of professional users, distributors and advisors
  - Anti-counterfeiting measures
  - Ensuring use of personal protective equipment (PPE)
  - Enhancing use of spray drift reduction nozzles

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Thank you for your attention